Discussion of Maeckel

Maeckel is similar to Saito in that the device of Maeckel detects a change in potential of a detection line 18 due to an arc L to ground through the outer insulation layer 4. Thus the arguments set forth above and discussed with the Examiner in regard to Saito apply equally to Maeckel.

Maeckel discloses that the detection line 18 is surrounded by insulation 20, which has a defined melting point (page 3, para. 0025). When an arc L occurs a greatly increased temperature occurs at the point of the arc L. As a consequence of this increase in temperature, the insulation 20 on the detection line 18 melts and splits open, and a coupling is produced either between the supply line 6 and the detection line 18, between the potential of the arc voltage and the detection line 18, or between the detection line 18 and ground. A current then flows in the detection line, which drives a switch 12 or activates initiator 14 to trip the switch 12 so that the current flowing through the supply line is interrupted (page 3, para. 0031).

Accordingly, in Maeckel the insulating layer 20 is damaged by the arc L to ground, but not the detection line 18 itself. The only change to the detector line 18 of Maeckel due to the arc L is the amount of current running through it. There is no irreversible change to the detection line 18 of Maekel caused by the arc L.

Maekel, like Saito, does not disclose or remotely suggest detecting an irreversible change to an electrical or optical property of a detector element (such as, for example, electrical resistance or optical transmission) due to an arc originating from a current-carrying inner conductor.

Applicants respectfully submit that the present invention is not anticipated by and would not have been obvious to one skilled in the art in view of Saito or Maeckel, taken alone or in combination with any of the other prior art of record.

Further remarks regarding the asserted relationship between Applicant's claims and the prior art are not deemed necessary, in view of the foregoing discussion. Applicants' silence as to any of the Examiner's comments is not indicative of an acquiescence to the stated grounds of rejection.

Withdrawal of the rejections under 35 U.S.C. § 102(b) and 35 U.S.C. § 103(a) is therefore respectfully requested.

Conclusion

The Examiner is respectfully requested to reconsider this application, allow each of the pending claims and to pass this application on to an early issue. If there are any remaining issues that need to be addressed in order to place this application into condition for allowance, the Examiner is requested to telephone Applicants' undersigned attorney.

Respectfully submitted,

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